SHORT COMMUNICATION

Lectotypification of F.M.Bailey names in *Conyza* (Asteraceae), *Diplanthera* (Bignoniaceae), *Pygeum* (Rosaceae), *Rhaphidophora* (Araceae) and *Tetracera* (Dilleniaceae) based on E.Cowley collections

Paul I. Forster¹ & John L. Dowe²

'Queensland Herbarium, Department of Science, Information Technology, Innovation and the Arts, Brisbane Botanic Gardens, Mt Coot-tha Road, Toowong, Queensland 4066, Australia. Email: Paul. Forster@dsitia.qld.gov.au

²Australian Tropical Herbarium, James Cook University, Cairns, Qld, Australia. Email: John.Dowe@jcu.edu.au

An account of the type collections made by Ebenezer Cowley in north Queensland is given by Dowe (2014). Over 40 new taxa based on Cowley specimens were named by F.M.Bailey and in numerous cases multiple collections were listed that are syntypes for these names. In several instances lectotypification of these names has remained in abeyance or been ignored with incorrect designation of some collections as sole types made by diverse authors. This appears to have been based on a common assumption that the first specimen cited by Bailey was automatically the holotype; however, there is no evidence that this was the case and in the late 1890s when he worked it was common practise to cite multiple specimens, but no actual 'type'.

In this note we discuss typification of these names (none of which are currently recognised) and designate lectotypes to ensure stability of their application thus fulfilling Art. 8.1 of the *International Code of Nomenclature* (McNeill *et al.* 2012), *viz.* "The type (holotype, lectotype, or neotype) of a name of a species or infraspecific taxon is either a single specimen conserved in one herbarium or other collection or institution, or an illustration".

- 1. Rhaphidophora lovellae F.M.Bailey (Araceae), Queensland Agric. J. 1: 453 (1897). Type citation: About 20 miles from Cooktown, Miss Lovell; and ranges about Cairns, E.Cowley. Type: Queensland. Cook DISTRICT: Near Cooktown, undated, S.Lovell s.n. (lecto [here designated]: BRI [AQ333008]).
- = **Epipremnum pinnatum** (L.) Engl., *Pflanzenr*. 37: 60 (1908).

Notes: There were two collections mentioned in the protologue, 'Cooktown, Miss Lovell' and 'ranges about Cairns, E.Cowley'. Hay (1993, 2011) listed the former as the holotype and made no mention of the second syntype for this name. The specimen (s. loc., undated, Cowley 31D (BRI [AQ333006])) was identified as the second syntype for R. lovellae by S.T.Blake and D.H.Nicholson in 1961. Nicholson also identified the material as R. australasica F.M.Bailey. The Lovell specimen is selected as lectotype.

2. Conyza elata F.M.Bailey (Asteraceae), Bot. Bull. Dept. Agric. Queensland 8: 78 (1893), nom. illeg. non Kunth. & Boucheé. Type citation: Abounding in the scrubs of the Russell River, and attaining the height of 12 or 14 ft., Bellenden-Ker Expedition; Barron River Scrubs. E.Cowley. Type: Queensland. Cook District: Stoney Creek, Barron River, undated, E.Cowley 72B (lecto [here designated]: BRI, 2 sheets [AQ370513]; iso: MEL).

= **Blumea riparia** (Blume) DC., *Prodr.* 5: 444 (1836).

Notes: The name *Conyza elata* F.M. Bailey was invalid when published due to it being a later homonym of *C. elata* Kunth. & Boucheé. It has been referred to synonymy under *Blumea riparia* (CHAH 2006–2012), although it was not referred to in the most recent revision of *Blumea* (Randeria 1960).

The two syntypes for *Conyza elata* F.M.Bailey are extant at BRI (AQ370513 and 370511). The Cowley collection is more extensive and the better specimen; hence its designation as the lectotype.

- 3. Diplanthera hirsuta F.M.Bailey (Bignoniaceae), Bot. Bull. Dept. Agric. Queensland 14: 11 (1896); Deplanchea hirsuta (F.M.Bailey) Steenis, Recueil Trav. Bot. Neerl. 920 (1927). Type citation: Stony Creek, Cairns (a shoot and loose flowers), L.J.Nugent. A large leaf and very young shoot gathered on Thursday Island, E.Cowley. Type: Queensland. Cook DISTRICT: Stoney Creek, undated, L.J.Nugent s.n. (lecto [here designated]: BRI [AQ333176]).
- = **Deplanchea tetraphylla** (R.Br.) F.Muell., *2nd Syst. Census Austral. Pl.* 167 (1889); CHAH (2006–2012).

Notes: The two syntypes for *Diplanthera hirsuta* are both extant at BRI (AQ333176 & 333178). The Cowley collection is sterile comprising a single large leaf and remnants of a shoot. In comparison the Nugent collection is fertile (remains of some flowers) and comprises an intact shoot with four leaves. As it is the better material, the Nugent collection is selected as lectotype for the name.

- **4.** Tetracera cowleyana F.M.Bailey (Dilleniaceae), Bot. Bull. Dept. Agric. Queensland 5: 7 (1892). **Type citation:** Herbert River, H.G.Eaton; Cairns, E.Cowley. **Type:** Queensland. Cook DISTRICT: Cairns, undated, E.Cowley 22 (lecto [here designated]: BRI [AQ341696]).
- = **Tetracera nordtiana** var. **moluccana** (Martelli) Hoogland, *Fl. Males. Ser. I*, 4: 145 (1951); Hoogland (1953: 203).

Notes: There are three Cowley specimens in BRI that are of *Tetracera* with two referable to *T. nordtiana* var. *moluccana*. One is labelled as 'Cairns' and the other as 'Barron River'. Hoogland (1953: 201) stated for typification of *T. cowleyana*: "Cowley s.n. Cairns, Queensland (Cook Distr.); holotype in BRI, isotype in MEL''; no mention is made of the Eaton collection (BRI [AQ181060]) although that author annotated the specimen in 1950 as *T. nordtiana* var. *moluccana*. *Cowley 22* (BRI [AQ341696]) was annotated by Hoogland as 'type' and is superior in quality to the other collection; it is designated as lectotype for this name.

- **5.** Pygeum turnerianum F.M.Bailey, Bot. Bull. Dept. Agric. Queensland 8: 75 (1893). **Type citation:** For shoot, bearing male flowers, and later branches with ripe fruit, Barron River, E.Cowley. Stones of fruit, Christie Palmerston and A. Meston. **Type:** Queensland. Cook District: Barron River, 1893, E.Cowley s.n. (lecto [here designated]: BRI [AQ317688]; isolecto: BM, K all n.v.).
- = **Prunus turneriana** (F.M.Bailey) Kalkman, *Blumea* 13: 81 (1965).

Notes: Kalkman (1965) cited "Cowley s.n., holotype probably in BRI (non vidi), isotypes seen from BM, K; paratypes: Palmerston (s.n.?), Meston (s.n.?), loose fruits probably also in BRI (non vidi)" but did not provide details about the specimens. This statement also reinforces the statement that authors in the past have interpreted the first listed collection as the type and subsequent collections as paratypes. Both the Palmerston and Meston fruit collections do not appear to be extant at BRI and the Cowley collection is chosen as lectotype for the name.

References

Chah (2006–2012). Viewed 16 July 2013, http://www.anbg.gov.au/gardens/

Dowe, J.L. (2014). The botanical collections of Ebenezer Cowley. *Austrobaileya* 9: 263–278.

HAY, A. (1993). Rhaphidophora petrieana - a new aroid liane from tropical Queensland: with a synopsis of the Australian Araceae-Monstereae. Telopea 5: 293–300.

- (2011). Araceae. In A.Wilson (ed.), Flora of Australia 39: 236–274. ABRS/CSIRO Australia: Melbourne.
- HOOGLAND, R.D. (1953). The genus *Tetracera* (Dilleniaceae) in the Eastern Old World. *Reinwardtia* 2: 185–224.
- Kalkman, C. (1965). The Old World species of *Prunus* subg. *Laurocerasus* including those formerly referred to *Pygeum. Blumea* 13: 1–174.
- Mcneill, J., Barrie, F.R., Buck, W.R., Demoulin, V., Greuter, W., Hawksworth, D.L., Herendeen, P.S., Knapp, S., Marhold, K., Prado, J., Prud'homme Van Reine, W.F., Smith, G.J., Wiersema, J.H. & Turland, N.J. (2012). International Code of Nomenclature for algae, fungi, and plants (Melbourne Code). Regnum Vegetabile 154. Koeltz Scientific Books.
- RANDERIA, A.J. (1960). The composite genus *Blumea*, a taxonomic revision. *Blumea* 10: 176–317.